

INDIANA

Wild Turkey Status 2002 and 2003 Spring Season Forecast

Prepared by: Steven E. Backs, Wildlife Research Biologist Date: October 24, 2002
Division of Fish and Wildlife
Indiana Department of Natural Resources

Note: Services provided are paid for by hunting license fees and taxes from the sales of arms/ammunition/archery equipment pursuant to the Pittman-Robertson Act - 1937.

2003 BROOD PRODUCTION

Wild turkey brood production in 2002 was 3.2 poults:hen which was a slight decrease from 3.3 poults:hen recorded in 2001 and only slightly below the average 3.3 poult:hen index of the previous 5 years (**Figure 1**). The proportion of hens observed with poults remained at 79%. The total number of brood observations increased over the previous year probably reflecting general population growth and expansion.

The summer 2002 production index was good news considering the high incidence of inclement weather (heavy rains) that occurred throughout the state during the April and May nesting period. The rainy weather generally subsided by Memorial Day and remained relatively favorable to poult survival during the first part of June. The summer drought conditions that occurred in late-July to September throughout many regions of the state raised some concerns but based on past history, late summer droughts may have actually enhanced turkey poult survival. The severe drought of 1988, which began during the spring, significantly reduced herbaceous ground cover and invertebrate foods leading to poor production. Herbaceous cover and invertebrate foods were quite abundant during the critical early brood period of 2002.

SPRING HARVEST - 2002 Check Station Results

The 33rd wild turkey hunt was held 24 April to 12 May, 2002, with special hunt days at Camp Atterbury held earlier. Harvest data was collected at 322 check stations throughout the turkey range. Hunters harvested 10,575 wild turkeys in 80 of the 90 counties open to hunting during the 19-day season. This was the twentieth consecutive year of increased harvests and a 6% increase over last year's harvest of 9,975 birds. Counties with high kills (300 birds harvested) were Switzerland (571), Jefferson (467), Dearborn (422), Perry (409), Harrison (387), Orange (366), Parke (359), Washington (354), Greene (346), Ripley (326), Crawford (325), Jennings (317), Franklin (316), Lawrence (315), and Warrick (313) (**Table 1**). Approximately 58% of the kill occurred during the first 5 days of the season with 33% occurring on the 3 weekends. Although legal shooting hours (starting at ½ hr prior to sunrise) were extended from the traditional 12 noon closure to sunset, 77% of the harvest occurred prior to 10 am, 83% by noon, and 11% after 4pm.

Based on spur measurements taken at check stations, juvenile gobblers ("jakes") made up 27% of the 2002 harvest; 2 yr-olds (47%); 3+ yr-olds (27%) (**Table 2; Figure 2**). Jakes averaged 15.7 pounds while the

average 2 yr-old weighed 21.3 lbs and 3 yr-olds weighed 22.5 lbs. The age structure of the harvest and the age specific weights are very similar to the mean values for the previous 10 years.

The statewide mean turkey kill/mi² of hunting range was 0.33 birds with 1.59 birds/mi² of forest cover (21% forest cover in hunt range). The mean harvest and harvest/mi² of hunting range for counties open to turkey hunting in both 2001 and 2002 shows regional variation in harvest with the SE and SC portions each accounting for 30% of the total harvest **Figure 3**.

Projected estimates of hunter numbers and annual success rates can only be roughly estimated with increased error until the 2002 hunter questionnaire analysis is completed. Questionnaires were sent to 5,550 permit holders after the 2002 season and questionnaire responses will be received until the end of October. The 2002 questionnaire analysis will be completed after the final state license audit is completed in July 2003. In lieu of the 2002 questionnaire information, projections based on the previous 5 years indicate that approximately 42,300 hunters participated in the 2002 season with an estimated success rate of 25 % (**Table 3**).

HARVEST PROJECTION

Rough projections for the 2003 season indicate the harvest will around 12,200 birds and assuming a 25% success rate we would expect an estimated 48,800 hunters in the field.

TURKEY HUNTING REGULATION CHANGES FOR 2003

None are anticipated and no additional range (90 of 92 counties open; Rush and Shelby still closed).

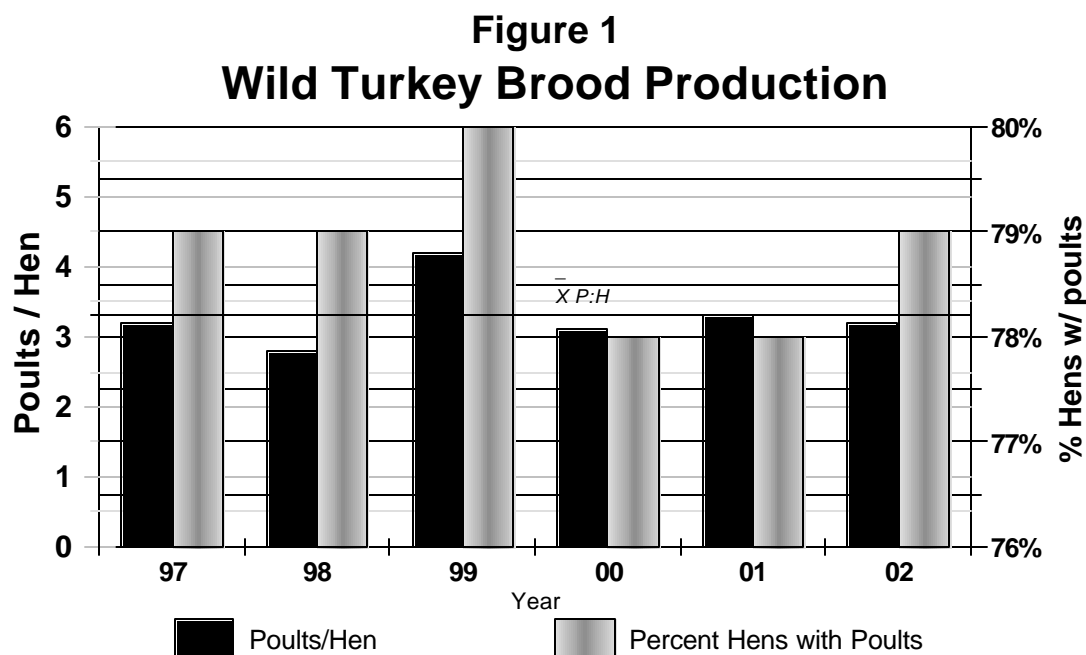


Table 1. Indiana wild turkey harvest by county, spring 2001 and 2002.

County	2001 Reported* Harvest	Percent of Harvest		2002 Reported* Harvest	Percent of Harvest
Adams	Not Open	NA		0	0.0%
Allen	Not Open	NA		9	0.1%
Bartholomew	98	1.0%		85	0.8%
Benton	3	0.0%		1	0.0%
Blackford	Not Open	NA		1	0.0%
Boone	3	0.0%		1	0.0%
Brown	260	2.6%		218	2.1%
Carroll ##	4	0.0%		1	0.0%
Cass	30	0.3%		31	0.3%
Clark	259	2.6%		296	2.8%
Clay	78	0.8%		98	0.9%
Clinton	0	0.0%		1	0.0%
Crawford	353	3.5%		325	3.1%
Daviess	81	0.8%		79	0.7%
Dearborn	416	4.2%		422	4.0%
Decatur	38	0.4%		31	0.3%
DeKalb ##	8	0.1%		17	0.2%
Delaware	Not Open	NA		0	0.0%
Dubois	174	1.7%		191	1.8%
Elkhart	Not Open	NA		16	0.2%
Fayette	41	0.4%		39	0.4%
Floyd	44	0.4%		64	0.6%
Fountain	135	1.4%		117	1.1%
Franklin	296	3.0%		316	3.0%
Fulton	21	0.2%		26	0.2%
Gibson	77	0.8%		76	0.7%
Grant	4	0.0%		10	0.1%
Greene	315	3.2%		346	3.3%
Hamilton	Not Open	NA		0	0.0%
Hancock	Not Open	NA		1	0.0%
Harrison	345	3.5%		387	3.7%
Hendricks	2	0.0%		0	0.0%
Henry	Not Open	NA		0	0.0%
Howard	Not Open	NA		4	0.0%
Huntington ##	18	0.2%		12	0.1%
Jackson	191	1.9%		203	1.9%
Jasper	18	0.2%		25	0.2%
Jay	Not Open	NA		0	0.0%
Jefferson	489	4.9%		467	4.4%
Jennings	244	2.4%		317	3.0%
Johnson	31	0.3%		39	0.4%
Knox	35	0.4%		38	0.4%
Kosciusko ##	4	0.0%		18	0.2%
Lagrange ##	59	0.6%		45	0.4%
Lake	1	0.0%		4	0.0%
LaPorte ##	60	0.6%		97	0.9%
Lawrence	290	2.9%		315	3.0%

* Harvest totals from check station reports.

A portion of County open to turkey hunting in 2001 with the entire county open in 2002.

Table 1 continued on next page.

Table 1. Indiana wild turkey harvest by county, spring 2001 and 2002 (continued) .

County	2001 Reported* Harvest	Percent of Harvest		2002 Reported* Harvest	Percent of Harvest
Madison	Not Open	NA		4	0.0%
Marion	Not Open	NA		0	0.0%
Marshall	99	1.0%		103	1.0%
Martin	239	2.4%		220	2.1%
Miami	16	0.2%		19	0.2%
Monroe	202	2.0%		204	1.9%
Montgomery	43	0.4%		41	0.4%
Morgan	50	0.5%		39	0.4%
Newton	62	0.6%		37	0.3%
Noble ##	3	0.0%		11	0.1%
Ohio	152	1.5%		198	1.9%
Orange	414	4.2%		366	3.5%
Owen	173	1.7%		198	1.9%
Parke	336	3.4%		359	3.4%
Perry	379	3.8%		409	3.9%
Pike	225	2.3%		238	2.3%
Porter ##	1	0.0%		12	0.1%
Posey	62	0.6%		56	0.5%
Pulaski	55	0.6%		42	0.4%
Putnam	117	1.2%		127	1.2%
Randolph	Not Open	NA		0	0.0%
Ripley	343	3.4%		326	3.1%
Rush	Not Open	NA		Not Open	NA
St. Joseph ##	14	0.1%		48	0.5%
Scott	130	1.3%		197	1.9%
Shelby	Not Open	NA		Not Open	NA
Spencer	211	2.1%		280	2.6%
Starke	137	1.4%		121	1.1%
Steuben	118	1.2%		107	1.0%
Sullivan	200	2.0%		231	2.2%
Switzerland	557	5.6%		571	5.4%
Tippecanoe	26	0.3%		42	0.4%
Tipton	Not Open	NA		0	0.0%
Union	56	0.6%		54	0.5%
Vanderburg	5	0.1%		6	0.1%
Vermillion	92	0.9%		96	0.9%
Vigo	83	0.8%		95	0.9%
Wabash	58	0.6%		51	0.5%
Warren	140	1.4%		123	1.2%
Warrick	245	2.5%		313	3.0%
Washington	326	3.3%		354	3.3%
Wayne	46	0.5%		37	0.3%
Wells	Not Open	NA		0	0.0%
White	4	0.0%		3	0.0%
Whitley	Not Open	NA		2	0.0%
Unknown	31	0.3%		46	0.4%
Totals	9,975	100.0%		10,575	100.0%

* Harvest totals from check station reports.

A portion of County open to turkey hunting in 2001 with the entire county open in 2002.

Table 2. Composition of Indiana's spring gobbler harvests, 1970-2002.

Year	Reported Harvest	Age Class Percentages* and Mean Weights (lbs)					
		1Yr	Wt.	2Yr	Wt.	3+Yr	Wt.
1980	54	33%		38%		29%	
1981	90	29%		20%		51%	
1982	73	21%		19%		60%	
1983	93	34%		38%		28%	
1984	104	32%		39%		29%	
1985	255	40%		39%		21%	
1986	293	29%		41%		30%	
1987	741	24%		44%		32%	
1988	905	45%	15.4	39%	20.7	16%	21.8
1989	1,359	20%	15.5	63%	20.7	17%	22.2
1990	1,505	31%	15.2	41%	21.0	28%	21.9
1991	2,318	25%	15.5	53%	21.1	22%	22.2
1992	2,531	38%	15.1	43%	20.8	19%	22.2
1993	3,500	18%	15.9	60%	20.9	22%	22.4
1994	3,741	41%	15.2	37%	21.2	22%	22.4
1995	4,706	28%	15.6	55%	20.6	18%	22.1
1996	4,859	24%	15.6	53%	21.6	23%	22.7
1997	5,790	21%	15.7	56%	21.5	24%	22.7
1998	6,384	22%	15.5	51%	21.1	28%	22.5
1999	6,548	25%	15.5	49%	21.1	26%	22.6
2000	7,822	27%	15.2	44%	20.7	28%	21.9
2001	9,975	26%	15.7	50%	20.1	24%	22.1
Previous Years' Means **		27%	15.5	50%	21.0	23%	22.4
2002	10,575	27%	15.7	47%	21.3	27%	22.5

* Based on longest spur measurement

** Mean percents and weights based on previous 10 years.

Figure 2
Harvest Age Structure 1980-2002

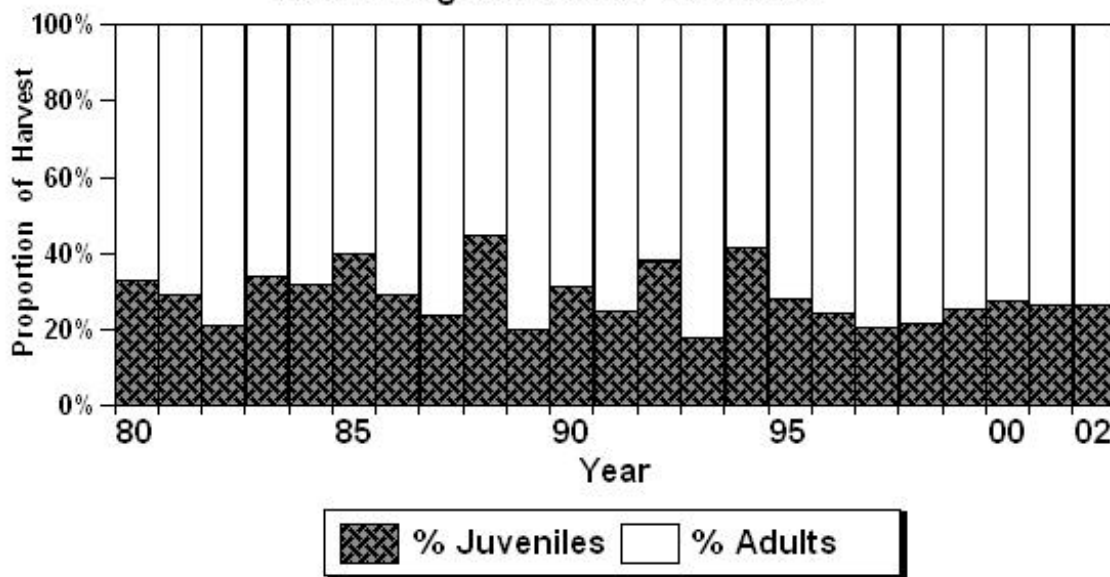


Figure 3 . Mean Turkey Kill / (Mean Kill per Mi²) for 2002.

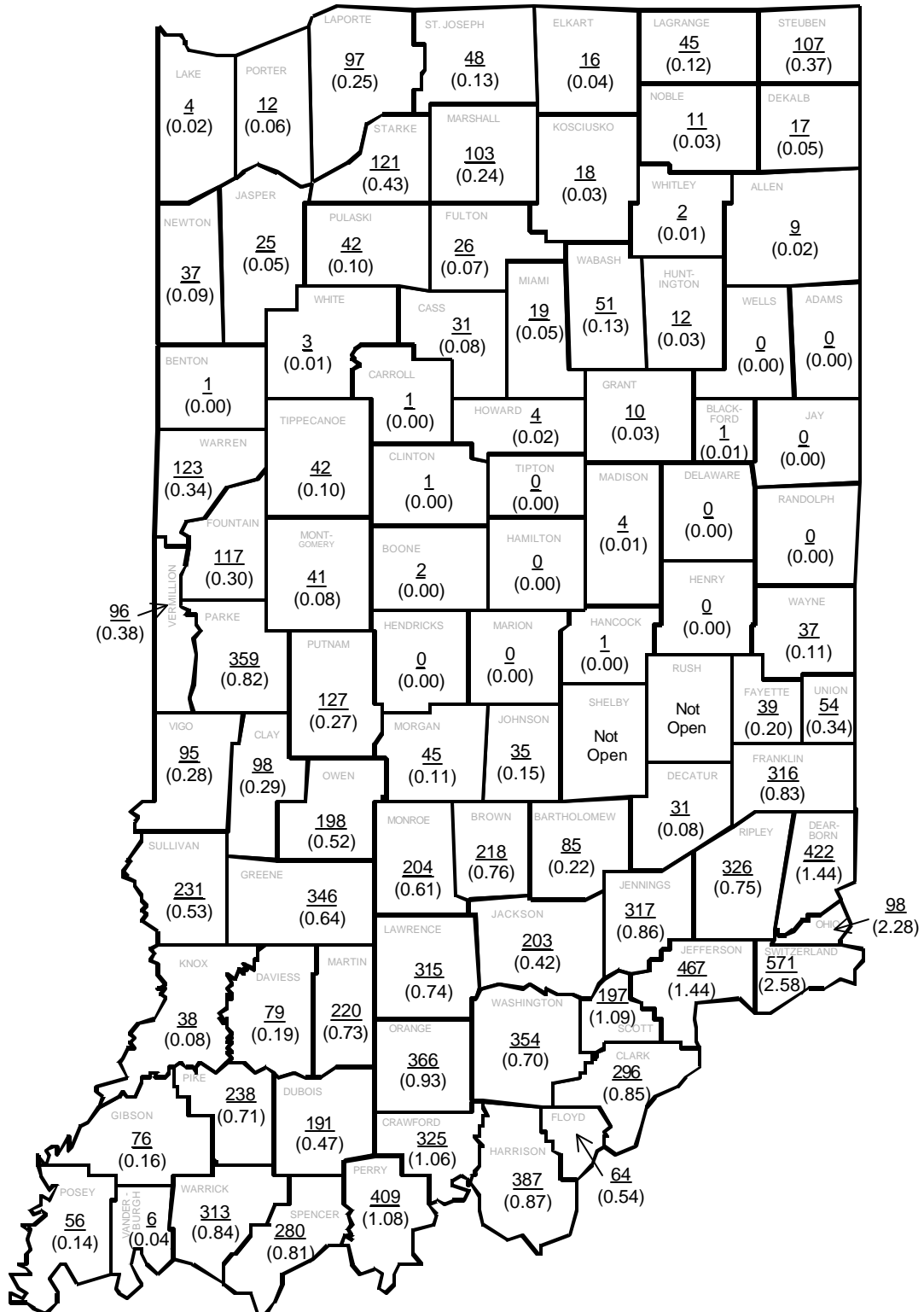


Table 4. Summary of Indiana's wild turkey hunting seasons, 1970 to 2002.

Year	Regular Season Dates	Season Length (Days)	No. of Counties	No. of Permits Sold*	Est. No. of Hunters**	Reported Harvest	Hunter Success
1970	5/2-5/5	4	3	75	62	6	9.7%
1971	5/1-5/5	5	9	298	224	11	4.9%
1972	4/26-4/30	5	9	585	422	12	2.8%
1973	4/25-4/29	5	11	625	503	27	5.4%
1974	4/24-4/28	5	11	665	496	26	5.2%
1975	4/29-5/5	7	11	722	501	15	3.0%
1976	4/29-5/5	7	13	666	500	32	6.4%
1977	4/28-5/5	8	16	668	520	46	8.8%
1978	4/26-5/7	12	18	852	619	33	5.3%
1979	4/25-5/6	12	19	932	860	48	5.6%
1980	4/23-5/4	12	17	706	670	54	8.1%
1981	4/22-5/3	12	18	922	814	90	11.1%
1982	4/21-5/2	12	18	1,125	696	73	10.5%
1983	4/20-5/1	12	18	1,218	984	93	9.5%
1984	4/25-5/6	12	18	1,320	1,205	104	8.6%
1985	4/24-5/5	12	25	1,882	1,302	255	19.6%
1986	4/23-5/4	12	25	2,523	1,648	293	17.8%
1987	4/22-5/6	15	33	3,348	2,619	741	28.3%
1988	4/27-5/11	15	33	10,894	4,677	905	19.4%
1989	4/26-5/10	15	39	11,442	6,068	1,359	22.4%
1990	4/25-5/9	15	39	14,379	7,860	1,505	19.1%
1991	4/24-5/8	15	43	16,387	9,643	2,318	24.0%
1992	4/22-5/6	15	43	18,735	13,110	2,531	19.3%
1993	4/28-5/16	19	48	21,078	15,673	3,500	22.3%
1994	4/27-5/15	19	48	23,357	18,622	3,741	20.1%
1995	4/26-5/14	19	52	28,858	20,861	4,706	22.6%
1996	4/24-5/12	19	52	28,733	21,442	4,859	22.6%
1997	4/23-5/11	19	74	32,703	23,085	5,790	25.1%
1998	4/22-5/10	19	74	32,889	22,876	6,384	27.9%
1999	4/21-5/9	19	74	38,730	27,285	6,548	24.0%
2000	4/26-5/14	19	74	40,900	30,000	7,822	26%
2001	4/25-5/13	19	74	45,000	33,000	9,975	30%
2002	4/24-5/12	19	90	59,000	42,300	10,575	25%
2003	4/23-5/11	19	90	63,000	48,800	12,200	25%

* Since 1987 totals include lifetime licenses and since 1988 youth licenses sold from Jan-Ma

** No. of hunters includes those permit holders who hunted >= 1 day and since 1986 has been adjusted for non-licensed landowners or military hunters.

Bold italics

= preliminary estimates based on projecting previous years' trends or means while also accounting for potential effects of regulation changes.

Figure 4

